

# **FIRST INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 1 of 1

Completed

Application Number	10/568,873
Filing Date	
First Named Inventor	Neil André ROBERTS et al.
Examiner Name	
Attorney Docket Number	013235-018

## **U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	4,755,316		Magid et al.	07-05-1988
	2002/0050583	A1	Caron et al.	05-02-2002
	6,783,691	B1	Bivens et al.	08-31-2004
	60/125,510		Bivens et al.*	09-28-2000

\*priority application for WO 00/56834, published 09-28-2000

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec
	0 399 817	A2	EP	11-28-1990							X
	0 539 952	A1	EP	05-05-1993				X			
	0 659 862	A1	EP	06-28-1995				X			
	2 356 867	A	GB	06-06-2001				X			
	9923088.0		GB**	04-05-2001							
	0005043.5		GB**	04-05-2001							
	0010171.7		GB**	04-05-2001							
	95/08602	A1	WO	03-30-1995				X			
	96/03473	A1	WO	02-08-1996				X			
	00/56834	A1	WO	09-28-2000							
	01/23491	A1	WO	04-05-2001							
	01/23492	A1	WO	04-05-2001							
	01/23493	A1	WO	04-05-2001				X			
	93/15163	A1	WO	08-05-1993				X			
	02/26912	A2	WO	04-04-2002				X			

\*\*priority application for WO 01/23491, published 04-05-2001

## **NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

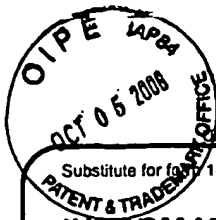
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

### Complete if Known

Application Number	10/530,873
Filing Date	April 11, 2005
First Named Inventor	Neil Andre Roberts et al.
Group Art Unit	1751
Examiner Name	Harder
Attorney Docket Number	VK0002USPCT

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup>	(if known)			
8		US -	5,520,833	05-28-1996	Kaneko	
		US -	5,688,432	11-18-1997	Pearson	
		US -	5,954,995	09-21-1999	Goble	
		US -	6,065,305	05-23-2000	Arman et al.	
		US -	6,076,372	06-20-2000	Acharya et al.	
		US -	6,230,519 B1	05-15-2001	Arman et al.	
		US -	6,511,610 B2	01-28-2003	Caron et al.	
		US -	6,526,764 B1	03-04-2003	Singh et al.	
		US -	6,606,868 B1	08-19-2003	Powell et al.	
		US -	6,629,419 B1	10-07-2003	Powell et al.	
		US -	6,655,160 B2	12-02-2003	Roberts	
		US -	6,695,973 B1	02-24-2004	Musso et al.	

### FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>
		CountryCode <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
8		JP	2002 228307 A	08-14-2002	Matsushita Electric		X
		CN	1183451	06-03-1998	Gu Chujun		X
		CN	1280166 A	01-17-2001	Qinghua University		X
		EP	0 427 604 B1	04-21-1993	Elf Atochem S.A.		
		EP	0 565 265 B1	12-13-1995	Star Refrigeration Ltd.		
		EP	0 856 571 B1	04-16-2003	Showa Denko Kabushiki Kaisha		
		EP	1 184 438 B1	03-06-2002	Atofina		
		EP	1 193 305 A1	04-03-2002	Honeywell International		
		GB	2 247 462 A	04-03-1992	Star Refrigeration Ltd.		
		GB	2 250 514 A	06-10-1992	Star Refrigeration Ltd.		
		GB	2 327 427 A	01-27-1999	Rhodia Limited		

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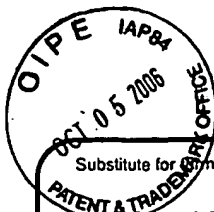
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 2 of 5

**Complete if Known**

Application Number	10/530,873
Filing Date	April 11, 2005
First Named Inventor	Neil Andre Roberts et al.
Group Art Unit	1751
Examiner Name	Harde
Attorney Docket Number	VK0002USPCT

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. 1	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US -			
		US -			
		US -			
		US -			
		US -			
		US -			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No. 1	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>
		JP 01108291	10-19-1997	Daikin Kogyo KK		<input type="checkbox"/>
		JP 2576161 B2 (JP 1-139675)	01-29-1997	Asahi Glass KK		X
		JP 2576162 (JP 1-139678)	01-29-1997	Asahi Glass Co. Ltd.		X
		JP 2584337 B2 (JP 4-18484)	02-26-1997	Sanyo Electric Co. Ltd.		X
		JP 1997059611 A	03-04-1997	Sanyo Electric Co. Ltd.		X
		JP 3127138 B2	01-22-2001	Showa Denko K.K.		X
		JP 3754198 B2	12-22-2005	Sanyo Electric Co. Ltd.		X
		KR 1997-022058	05-28-1997	(Kosh-N) Hankook Shimwha Co. et al.		X
		RU 2 072 382 C	01-27-1997	Podchernjaev et al.		<input type="checkbox"/>
		RU 2 135 541	08-27-1999	Rossiiskij nauchnyj tsentr "Pnkladnaja khimija"		<input type="checkbox"/>
		RU 2 161 637 C2	10-01-2001	Beljaev, Andrej Jur'evich		<input type="checkbox"/>
		WO 93/01152 A2	01-21-1993	DuPont		<input type="checkbox"/>
		WO 94/00529 A1	01-06-1994	Great Lakes Chemical Corporation		
		WO 97/34961	09-25-1997	Goble		
		WO 02/24829 A1	03-28-2002	Rhodia Organizue Fine Limited		<input type="checkbox"/>
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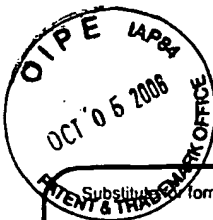
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT


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Sheet 3 of 5

### Complete if Known

Application Number	10/530,873
Filing Date	April 11, 2005
First Named Inventor	NEIL ANDRE ROBERTS et al.
Group Art Unit	1751
Examiner Name	Harde
Attorney Docket Number	VK0002USPCT

### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PC		WILSON, DP, RICHARD, RG; "Determination of Refrigerant Lower Flammability Limits in Compliance with Proposed Addendum p to Standard 34"; ASHRAE Transactions 2002, v. 108; pp. 1-17; June 23, 2002	<input type="checkbox"/>
PC		ROBERTS, NA, PEARSON, SF; "High Efficiency R22 Replacement (ISCEON 59, a mixture of R125, R134a and isobutane)"; Congress Symposium Meeting-Colloque, 1998 Int. Compressor Eng. Conf., Purdue, July 23, 1996	<input type="checkbox"/>
PC		ROBERTS, NA; "Energy Saving Refrigerant Blends Comprising R125, R134a, R600 or R600a"; European Conference (Milan); pp-108; June 17-18, 2005	<input type="checkbox"/>
PC		"Final Draft International Standard-Projet Final de Norme Internationale", International Electrotechnical Commission, IEC; December 17, 2004	<input type="checkbox"/>
PC		SANDERS PA., "Table 14-2 Flammability Limits of Various Propellants in Air", Handbook of Aerosol Technology, Second Edition, Malabar, Florida, pp. 233, 250 (1987)	<input type="checkbox"/>
PC		Test Protocol for Determination of Refrigerant Properties (Description of Equipment; Chart: Position of Thermocouples and Transducers on LT-Calorimeter; Operating Conditions)	<input type="checkbox"/>
PC		 Chart: Vapor Composition Flammability Data	<input type="checkbox"/>
PC		English Abstract: JP 01108291 (1987)	<input checked="" type="checkbox"/>
PC		English Abstract: RU 2161637	<input checked="" type="checkbox"/>
PC		BUTLER D., "R22 drip-in a success at BRE", Refrigeration and Air Conditioning, pp. 49-50 (1994)	<input type="checkbox"/>
PC		Fluorocarbon azeotropes, Research Disclosure 16265 (1977)	<input type="checkbox"/>

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Application Number	10/530,873
Filing Date	April 11, 2005
First Named Inventor	Neil Andre Roberts et al.
Group Art Unit	1751
Examiner Name	Harde
Attorney Docket Number	VK0002USPCT

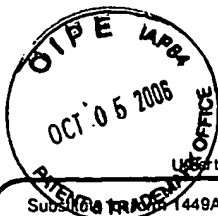
### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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R		JP 01 139678 (English Translation of the Abstract) (1989)	<input type="checkbox"/>
R		PEARSON SF, "Uses of hydrocarbon refrigerants", I.I.F.-I.I.R. Commissions B1, B2, E1 and E2, pp. 439-46 (1998)	<input type="checkbox"/>
R		E-mail reply from Herrick Conference to Felix Flohr dated May 27, 2003	<input type="checkbox"/>
		Internet citation, "Conference Organizing Committee", <a href="http://www.ecn.purdue.edu/Herrick/Events/organize-frame.htm">http://www.ecn.purdue.edu/Herrick/Events/organize-frame.htm</a>	<input type="checkbox"/>
		Internet citation, "Registration Information", <a href="http://www.ecn.purdue.edu/Herrick/Events/Registration.htm">http://www.ecn.purdue.edu/Herrick/Events/Registration.htm</a>	<input type="checkbox"/>
R		ASHRAE Standard 34-2001, "Contents", pp. 7 and 13	<input type="checkbox"/>
		Sworn Statement by Christoph Meurer (09 07 2003)	<input type="checkbox"/>
		BIRETT K, "Information sheets on hazardous substances" (1996)	<input type="checkbox"/>
		SOFFIENTINI ET AL., "Evaluation of alternative refrigerants when retrofitting R-22 refrigeration systems", Centro Studio Galileo - Industria & Formazione Eleventh European Conference, Milan, Italy (2005)	<input type="checkbox"/>
		JP 01 139675 (English Translation of the Abstract) (pub. prior to 2002)	<input type="checkbox"/>
R		ROBERTS NA, "Determination of the performance, leak scenario, flammability and oil return characteristics of novel R22 replacement", Proceedings of the Seventh International Refrigeration Conference at Purdue University, West Lafayette, Indiana (1998)	<input type="checkbox"/>

Examiner Signature	Harde	Date Considered	2/5/07
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)	<b>Complete if Known</b>	
	Application Number	10/530873
	Filing Date	October 13, 2003
	First Named Inventor	OWEN ROSS CHAMBERS
	Group Art Unit	1751
	Examiner Name	Harder
Sheet 5 of 5	Attorney Docket Number	VK0002USPCT

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
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R		MUSO E ET AL., "Miscelanea a base di HFC contenenti idrocarburi come sostituti "drop in" di R12 nella refrigerazione domestica", Conference on Conditioning, Heating, Refrigeration: Innovations and Trends, Milan, Italy (1997)	<input type="checkbox"/>
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